SAN DIEGO

SPAWAR Systems Center San Diego

Building Management Support for SPI

Systems Engineering Process Office

SPAWAR Systems Center, San Diego

July 10, 2000

Building Management Support for SPI

Based on SEPG 2000 presentations:

#99 Adventures in the Black Hole: Influencing and Working Effectively with Middle Management to Implement SPI Effectively

 # 4 Action Planning Techniques for SPI

#23 Becoming a Creative Change Agent

#35 Is Senior Management Support *REALLY* Necessary?

#70 Leading 21st Century Teams

#84 The Language of Change

All material attributed to Myers except where noted

Is Management Support *REALLY* Necessary?

Chronology of 3,000-person organization

- **1994: Level 2 policies drafted, but *no funding for SPI***
- **1996: SPI initiated, 2 projects assessed at Level 1**
- **1997: Policies signed but *for "those who want to participate"***
- **1997: Management accountability requested by SEPG, *never implemented***
- **1997: SPI review: *"I guess I don't have a choice"***
- **1998: SPI Training Plan rejected, *"too much work"***
- **1996-98: Contract requiring Level 2 processes; SCE held after 18 months**
  - **Developers satisfied 10 of 12 Level 2&3 KPAs**
  - **Project Mgmt. Office satisfied 0 of 1 KPA (SSM)**
  - ***Entire Award Fee given to Project Mgmt. Office***
- **1999: *94% of developers resigned. SEPG cancelled.***

Lessons Learned:

- **Ensure that Senior Commitment and support is present**

-
Wasielczyk

The SPI Agent's Greatest Challenges

Leading process improvement efforts in organizations where the leaders do not believe they have a critical role to play – or that their behaviors will have to change

- Carter

Overcoming resistance from SPI participants, practitioners, and especially "managers" - technical leads, project managers, middle managers, and senior managers.

What is Resistance?

They aren't doing what I want them to do.

Basic Premises of Resistance

1. The best way to deal with resistance is not to create it in the first place.
2. Despite all you can do by way of prevention,
   your effort will meet with resistance.
3. It is not possible to overcome resistance.
4. If you try to overcome resistance,
   you will only succeed in driving it underground.
5. Underground resistance will manifest itself
   - at the worst possible time,
   - under the worst possible circumstances,
   - and in the worst possible way.
6. For change to be successful,
   - sources of resistance must be understood,
   - key individuals must be motivated,
   - and their resistance must be transformed to commitment.

Dealing with Resistance

Prevention	**Don’t create it.**
Mitigation	**There will be resistance despite your best efforts; you will have to minimize its negative impact until …**
Transformation	**… it becomes commitment and support.**

Why Managers Resist SPI

Some people describe managers as:

Selfish

Stupid

Obstinate

Lazy

Egotistical

Clueless

Morons

Egoistic

Arrogant

Difficult

Idiots

Incompetent

Uncaring

Negative Attribution: The Problem

- **Characterizing "Management" in a negative way eliminates any possibility of improvement:**
  - **Communication is diminished or is shut off completely.**
  - **The resulting lack of understanding develops and perpetuates distrust.**
  - **"Management's" perceived characteristics become the cause of all the problems.**
  - **"Nothing can be done" to fix basic personality characteristics.**
  - **Problems are viewed as being unsolvable.**
  - **People resign themselves to the status quo and give up hope.**
  - **Each new attempt at improvement meets with pessimism.**
  - **People expect failure.People act on their expectations, and get what they expect.**
  - **The cycle perpetuates itself.**
- ***The result: Nothing changes for the better.***

An Alternate View of Managers

Other people describe managers as:

Intelligent

Hard Working

Concerned

Professional

Experienced

Enculturated

Diligent

Educated

Dedicated

Frustrated

Overwhelmed

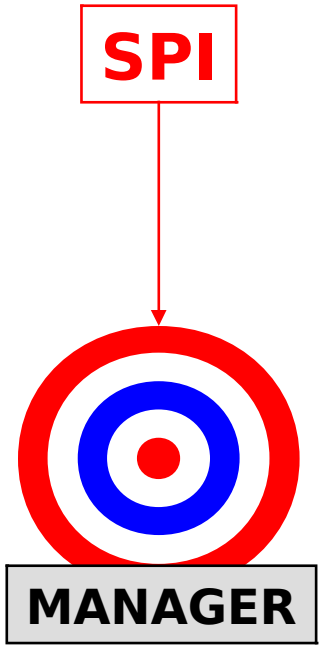
Human

Why would managers with such positive characteristics behave so negatively?

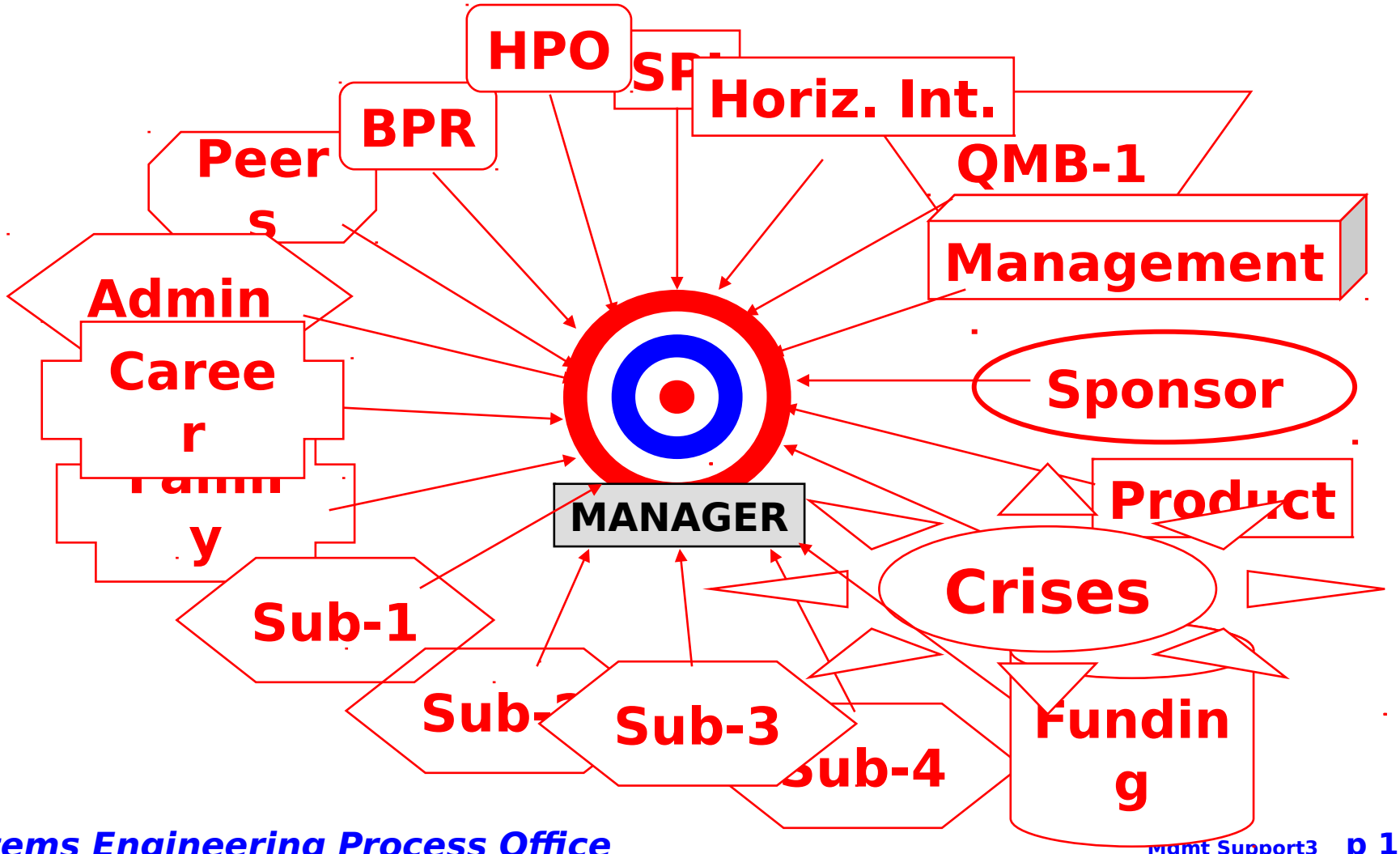
Possible Explanations:

- **They're overwhelmed.**
- **They are bought in, they're just not effective champions.**
- **They think SPI costs too much.**
- **Their resistance is directed at something other than SPI.**
- **They don't understand SPI, or they misunderstand.**
- **They do understand but don't see the value.**
- **They're pessimistic.**

The Manager “Target” - our view



The Manager "Pin Cushion" - manger's view



Suggestion 1 for SPI Agents: Work from Positive Assumptions

Advantages:

- **Opens you to alternate explanations for the behavior you observe**
- **Gives you access to information that otherwise would not be available**
- **Broadens your understanding of the situation you are facing**
- **Reduces the risk of misinterpreting managers' actions**
- **Opens the door to building relationships of trust**
- **Creates opportunities, options, and alternatives**
- **Increases the likelihood that you will be successful**
- **Helps you to identify accurately those situations where special circumstances exist**

But remember …

You need not be naively trusting.

Exercise A: Your Attitudes toward Management

Think of a manager whom you perceive to be "resisting" the introduction of SPI, and whose "resistance" is particularly vexing. What is the individual's name or position?

1. **In what ways do you tend to think of this manager's "resistance" as being due to negative personality characteristics?**
   -
   -
   -
   -
2. **In what ways might <u>your</u> attitude and attributions be inhibiting your ability to deal effectively with this manager's "resistance?"**
   -
   -
   -
   -
3. **How might a change in <u>your</u> attitude toward this individual help you to deal more effectively with the "resistance" you are experiencing?**
   -
   -
   -
   -

Suggestion 2: Do an Attitude Check on Yourself - Be Unconditionally Constructive

Rationality

Even if they are acting emotionally, balance emotions with reason.

Understanding

Even if they misunderstand us, try to understand them.

Communication

Even if they are not listening, consult them before deciding on matters that affect them.

Reliability

Even if they are trying to deceive us, neither trust them nor deceive them; be reliable.

Acceptance

Even if they reject us and our concerns as unworthy of their consideration, accept them as worthy of our consideration, care about them, and be open to learning from them.

Suggestion 3: Make SPI relevant, make it important, make it easy

Extrinsic Motivators - "carrot and stick"

Examples:
- **SPI as part of performance evaluation**
- **basis for bonuses/raises/points**
- **disciplinary action taken for non-compliance**

Results: short term, temporary, *compliance*

Intrinsic Motivators - "Heart and Mind"

Examples:
- **makes job easier, more enjoyable**
- **gives greater control over time and schedule**
- **reduces time/budget requirements**

Results: long term, permanent, *commitment*

If you can't get commitment, compliance is the next best thing.

If you can't get their heart and mind, their posterior will do.

Exercise B: Overwhelming Demands

1. What demands does this manager's environment regularly make on his or her time?
   -
   -
   -
   -
   -
   -
   -
   -
   -
   -
   -
   -
   -
   -
2. In what ways is SPI relevant to this manager's responsibilities?
   -
   -
   -
   -
3. Give the demands on this manager's time, why should SPI be important to him/her?
   -
   -
   -
   -
4. What might be done to "make it easy" to this manager to do SPI-related work, or easier to do than other activities that currently seem to be higher than SPI on his or her priority list?
   -
   -
   -

Suggestion 4: Help them be Effective SPI Champions

Types of champions:

Authorizing - The single individual in the organization who can commit all resources required to implement a change successfully and enforce behavioral changes that are required

Reinforcing - Other managers whose support and/or reinforcement is required for successful implementation. They oversee implementation in their areas of responsibility to ensure that they contribute to overall success.

Enabling - A "high" level manager who watches over the implementation and lends assistance to change agents and others when obstacles arise that are beyond their power to resolve.

Demonstrating Priorities and Commitments

Key Physical Actions of managers that demonstrate their priorities and commitments:

- **What they pay attention to, measure, and control on a regular basis**
- **What they get angry about**
- **How they react to critical incidents and organizational crises (use tiger teams, or stick with the process?)**
- **Observed criteria by which they allocate scarce resources**
- **Deliberate role modeling, teaching, and coaching**
- **Observed criteria by which they allocate rewards and status**
- **Observed criteria by which they recruit, select, promote, retire, and excommunicate organizational members**

How can managers use these cues to show support for SPI?

Exercise C: Effective Champion Activities

Consider the cues that can strongly influence perceptions regarding leaders' de facto priorities (previous viewgraph)

1. **What is this manager currently doing that might indicate that SPI is, in fact, fairly high on his or her priority list?**
   -
   -
   -
   -
2. **What cues is this manager currently giving that might cause people to believe that SPI is relatively low on his or her priority list?**
   -
   -
   -
3. **What might this manager START doing, or do more of, that might change this perception?**
   -
   -
   -
4. **What might this manager STOP doing, or do less of, that might change this perception?**
   -
   -
   -

Suggestion 5: Identify and address the objects of resistance.

Objects of resistance:

- **The perceived consequences of introducing SPI**
- **Their perceptions about the cost of SPI**
- **Their perceptions about the implementation approach**
- **Their perceptions about the people who are responsible for the change**
- **Their perceptions about change in general**

Exercise D: Objects of Resistance

1. To what extent might this manager's "resistance" be a reaction to the perceived consequences of implementing SPI?

2. To what extent might these perceptions be justified? Clearly NOT justified?

3. To what extent might this manager's "resistance" be a reaction to the people who are pushing SPI?

4. To what extent might this manager's "resistance" be a reaction to the SPI implementation approach?

5. To what extent might this manager's "resistance" be a natural caution about any change?

6. What might be done to mitigate the various factors that may be contributing to this manager's "resistance?"

Suggestion 6: Avoid jargon; get out of the buzzword mode; take advantage of every opportunity to teach

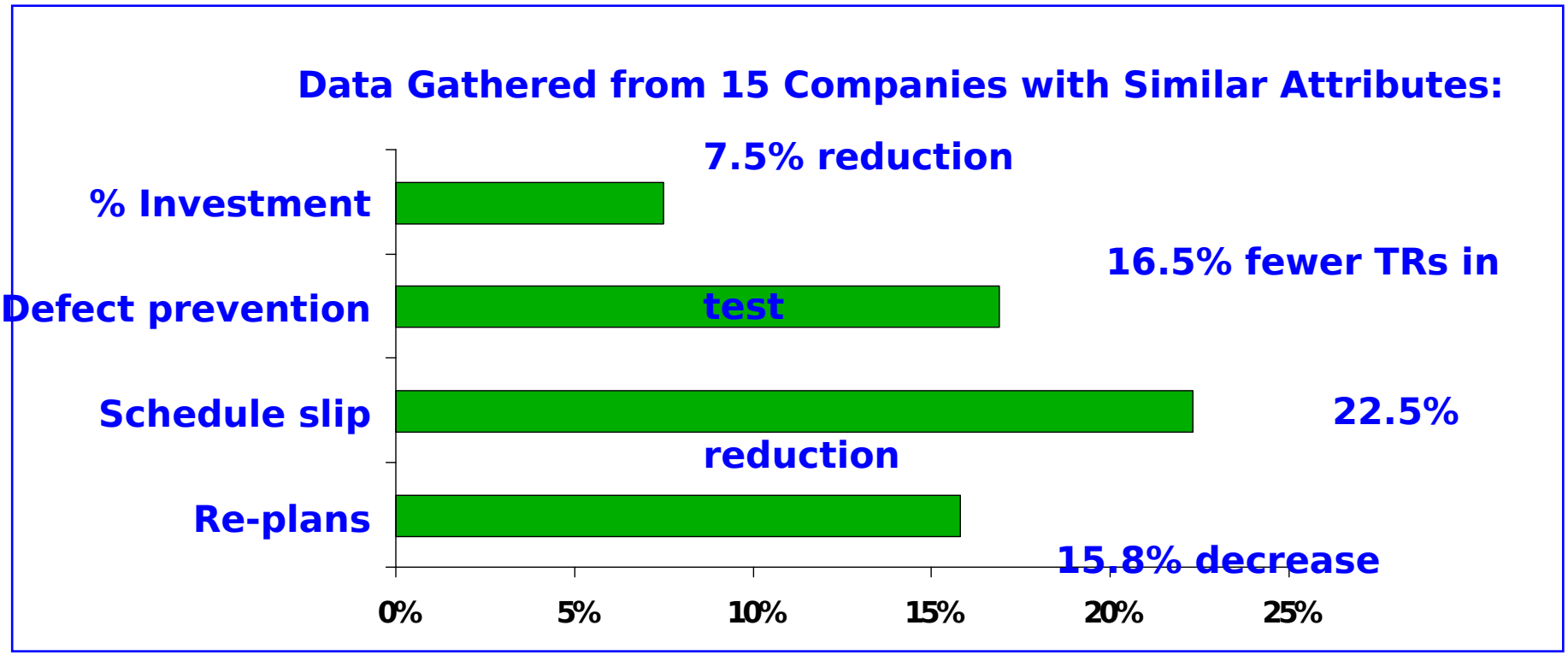
Avoid jargon - Choose words that work

No	Yes
auditassessment / evaluation	
inspection	review
complianceconformance	
certified CMM Level n	*(doesn't exist in SPI)*
may	will
statistics show …I don't know	
the troops, people in trenches	engineers, people, practitioners
"they"	*(state who "they" are or don't blame them)*

- West & Sullivan

Customize Communication to Your Audience - 1

Why SPI? (*Written for Myers-Briggs Sensing types)*

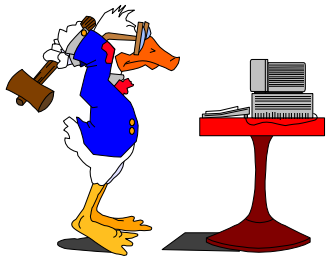


66% of managers, 50% engineers, 29% change agents are Sensing

- West & Sullivan

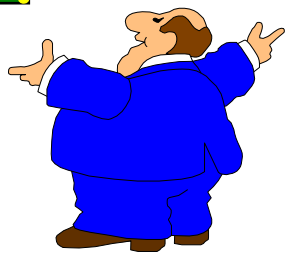
Customize Communication to Your Audience - 2

Why SPI? (*Written for Myers-Briggs iNtuitive types)*

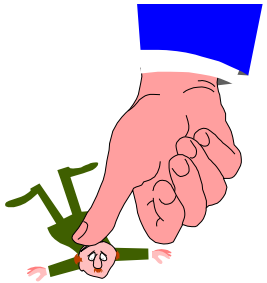


Less stress.

Happy customers.

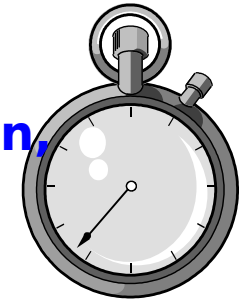


Engineers won't have to perform magic anymore.



Fewer interruptions from management.

More time for fun, exciting work.



34% of managers, 50% engineers, 71% change agents are iNtuitive

- West & Sullivan

Suggestion 7: Address legitimate concerns, make benefits relevant.

What historical evidence does this manager have that might cause him or her to be pessimistic about SPI's chances of being implemented successfully?

Begin With the End in Mind

- **Is our goal to "Reach Level 3?" "Reach Level 5?"**
- **What are we really trying to accomplish with SPI? One candidate for consideration might be:**

**We are trying to make
our software engineering environment
as productive, fulfilling, enjoyable, and pain-free as possible,
for everyone who is associated
with developing software products,
at every level.**

- Myers, based on Stephen Covey's "Seven Habits of Highly Effective People"

Define your Results, Needs, Activities

Results	Needs	Activities
What desired results do we want to achieve? How much improvement can we expect?	What do we need to change to affect this result? How soon do we need this result to improve?	What tasks do we expect to be done to effect the needed change? Can this be done on time, to get the desired results?
Prioritize by Impact	Prioritize by Urgency	Prioritize by Feasibility

- Caputo

Sample Worksheet

Results	Needs	Activities
Produce quality software	Need to meet all requirements Need to reduce defects delivered	- Manage requirements - Manage changes - Hold peer reviews - Conduct testing - Manage configurations - Perform SQA
Deliver to customer on time	Need to schedule activities and track status	- Plan activities - Develop schedule - Track actual progress - React to deviations
Deliver within budget	Need to budget our activities, track progress	- Plan activities - Identify resource needs - Develop budget - Track actual costs - React to deviations

Suggestion 8: Help senior managers establish middle managers' perceptions regarding priorities, standards, and expectations, particularly through the use of physical cues.

What might senior managers do?
(consider the key physical actions that demonstrate
their priorities and commitments - viewgraph 19)

Summary of Suggestions for Working with Managers

1. Work from positive assumptions
2. Do an attitude check on yourself; be “unconditionally constructive.”
3. Make SPI relevant, make it important, make it easy.
4. Help them be effective champions.
5. Identify and address the objects of resistance
6. Avoid jargon; get out of the buzzword mode; take advantage of every opportunity to teach
7. Address legitimate concerns, make benefits relevant.
8. Help senior managers establish middle managers’ perceptions regarding priorities, standards, and expectations, particularly through the use of physical cues.

The Leader's Processes

- Establish and maintain the vision
- Deduce objectives
  - critical operational mission objectives
  - critical organizational change/improvement objectives
- Select priorities
- Apportion assets
- Measure effectiveness
- Delegate and engage
  - But you can't delegate leadership, quality, responsibility (Juran)
- Develop subordinates and the organization
  - None of us will be here forever

cited by Carter with details

Stages for Leading Change

1. Establish a sense of urgency
2. Creating a guiding coalition
3. Developing a vision and strategy
4. Communicating the vision
5. Empower for broad based action
6. Generate short term wins
7. Consolidate gains and produce more change
8. Anchoring the new approaches in the culture

Leading Change,
cited by Bennett with details